

CHAPTER 17: FIRE AND EMERGENCY SERVICES

The mission of the City's Fire Department is to serve and protect our community through education, prevention, preparedness and response. The service area covers 350 square miles and over 741,200 residents.

A separate entity under the City Manager's Office, the Office of Emergency Management (OEM) was established to develop plans and procedures to preserve life and property during natural and man-made disasters.

EXISTING CONDITIONS AND TRENDS

The Fire Department provides fire suppression and rescue, first-responder emergency medical services, hazardous materials emergency mitigation, fire code enforcement, fire safety education, and explosive containment and disposal as detailed in the Fire Department business plan.

OEM strives to keep Fort Worth and Tarrant County prepared for all types of disasters, both technical and natural. Partial funding for this office is provided by a matching grant from the Federal Emergency Management Agency (FEMA).

Fire Services

The City has a Public Protection Classification (PPC) rating of two (2) as assigned by the Insurance Services Office (ISO). This rating from the ISO is based on a number of factors including training, staffing, number of fire stations, equipment dispatched to fires, equipment on trucks, fire prevention, investigation, fire safety education, construction code enforcement, hydrant maintenance, water supply, and the ability of the 911 center to answer and dispatch calls. The PPC determines the fire insurance rates for property owners; the lower the rating for the area the higher the potential for savings. The City was last reviewed by the ISO in 2010, resulting in a rating of two (2), which was also the City's rating in 2007.

The Fire Department monitors new residential and commercial development since growth typically creates the need for new fire stations to be strategically located within these growing areas. Managing the expansion of fire services is currently the department's greatest challenge. One new fire station opened in the Spring of 2010. Station 34 is located at 14101 Sendera Ranch Boulevard. Station 42, located at Spinks Airport, began construction in 2011 and will be completed in 2012. Station 5 which was previously located at 1000 Evans Avenue has been relocated to a new prototype fire station at 850 Irma Street.

The strategic deployment of fire fighting equipment and trucks with the appropriate number of firefighters will continue to be a demanding and expensive undertaking, particularly as the City continues to grow geographically. Future annexations will challenge the Fire Department to provide fire, rescue, and emergency medical services as stated in the department's business plan. The Fire Department has proposed eventually staffing each of the new northern stations with two fire companies.

Insurance Service Organization (ISO) Rating of the Ten Largest Cities in Texas, 2010

City	2010 Population	ISO Rating
Houston	2,099,451	1
Dallas	1,197,816	2
San Antonio	1,327,407	3
Austin	790,390	2
Fort Worth	741,206	2
El Paso	649,121	1
Arlington	365,438	2
Corpus Christi	305,215	3
Plano	259,841	1
Garland	226,876	2

The Fort Worth Fire Department's ISO rating remained 2 in 2010. (Source: 2010 U.S. Census; Fire Department Survey, 2011.)

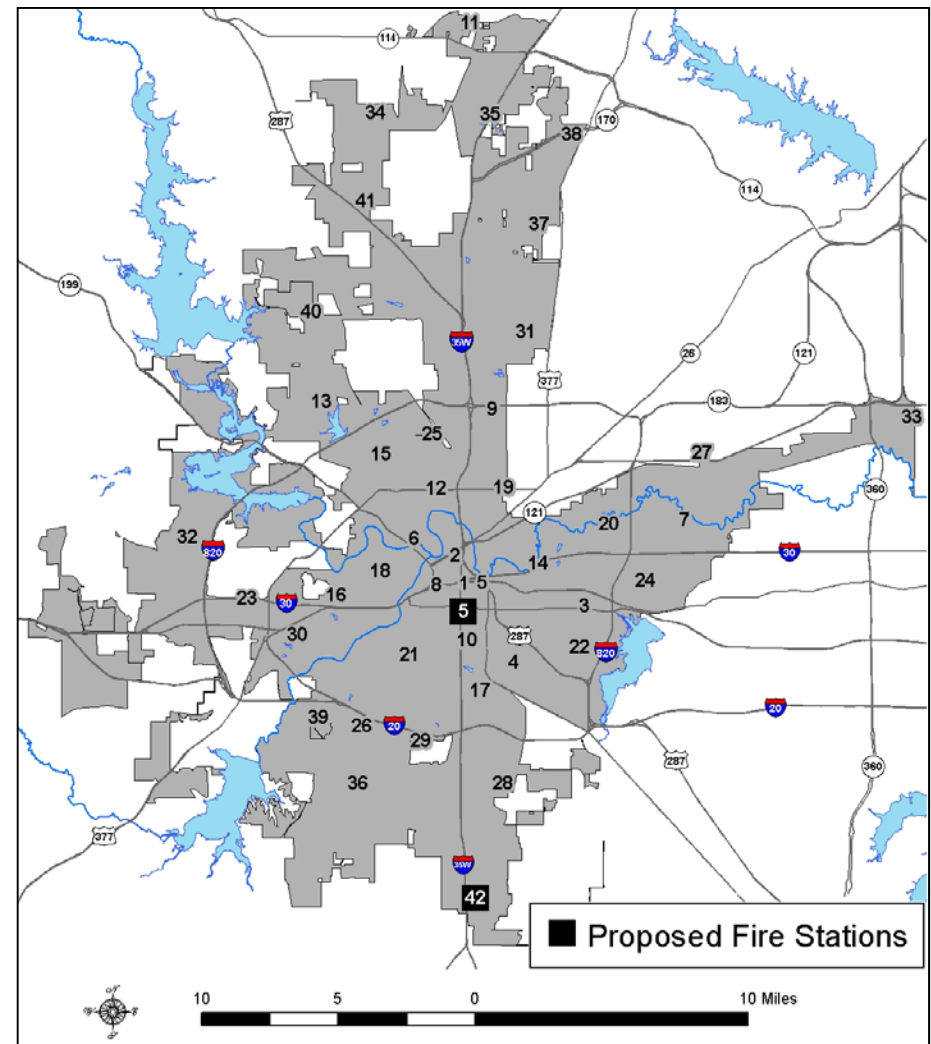
Although the addition of new fire companies is an important objective, it is also important to support the expanding fire fighting force and our growing city with technical and logistical personnel and resources. There will be a need for additional staff, including instructors, public educators, inspectors, fire investigators, mechanics, battalion technicians, and data analysts. The continuing expansion of the department's coverage area and the resulting workforce will also require additional supervision in the form of an additional battalion, which would raise the total to seven. Additionally, as the Operations Division continues to grow there will be a need to adjust the span of control of management. This will necessitate the addition of "shift commanders" to assist in the planning, organization, and direction of the activities and programs of company officers and personnel on each of the three work shifts.

The Fire Department plays a major role in the City's overall Emergency Medical Services (EMS) system working under the medical direction of the Area Metropolitan Ambulance Authority to provide first-responder emergency medical response services. All firefighters are trained, at minimum, as State-certified emergency medical technicians (EMT's). All fire trucks carry automatic external defibrillators (AED's) and other state of the art EMS equipment and supplies to help stabilize patients until advanced life support (ALS) personnel and equipment arrives. Under this system the Fire Department does not transport patients, a service which is provided by a third party.

Other emergency services provided by the Fire Department include a Water Emergency Response Team that is equipped and trained to handle surface rescues, swift water rescues, and underwater search and recovery; Aircraft Rescue and Fire Fighting (AARF) responsibilities for the City's three municipal airports; a Hazardous Materials (HazMat) Team that is trained and equipped to respond to the spill or leak of dangerous chemical, radiological, or biological products; and a Technical Rescue Team (TRT) that is trained and equipped to deal with large transportation accidents (train, bus, aircraft), structurally collapsed buildings, rope rescue for aboveground emergencies, confined space rescues, and cave-in or trench rescues.

The total response time to an incident, from the call being received at the Fire Alarm Office to the first unit arriving at the scene, is an important measure for fire departments. For internal purposes, this response time is broken out into three sections; call processing time, turn-out time, and drive time. Call processing time is defined by the time it takes dispatch to get the information, enter it into the computer system, and notify the appropriate fire station(s). Turn-out time is the time from when the station receives the dispatch until the fire apparatus is en-route. Drive time is the time the apparatus spends traveling to the scene. The Fire Department goal for emergency call response is one minute (60 seconds) for call processing time, one minute (60 seconds) for turn-out time, and four minutes (240 seconds) for drive time, for a total of six minutes. Additionally, since the city is so large, the department's secondary goal is to achieve this six minute response time 90% of the time. As the bottom chart on page 174 shows, the Fire Department typically struggles to reach this goal across the entire city. Typically, this goal is met in the core of the city, but

Fort Worth Existing and Proposed Fire Stations



The City of Fort Worth has 42 fire stations within its city limits. Station 42 is estimated to be completed in the Spring of 2012. (Source: Fire Department, 2011.)

numerous factors impair the department's ability to achieve this goal in the outskirts of the city limits.

The Fort Worth Fire Department has begun implementing a new reporting system for significant events that was originally developed by the U.S. Navy. The objective of the new reporting system is to estimate dollars saved or loss averted by determining the likely extent of the fire if the fire department had not taken protective measures.

FIRE SERVICES GOALS

Operations:

- Respond to and mitigate emergency and service calls in a timely and competent manner with adequate resources.
- Provide for a highly trained workforce that is adequately furnished with well-maintained equipment and facilities.

Educational and Support Services:

- Recruit a qualified workforce that reflects the diversity of the city.
- Develop a competent workforce through education and training.
- Provide effective medical training to the public and fire personnel.
- Dispatch appropriate resources and respond to needs of on-scene personnel in a timely manner.
- Efficiently procure leading-edge communication equipment and keep it well maintained and well-organized.

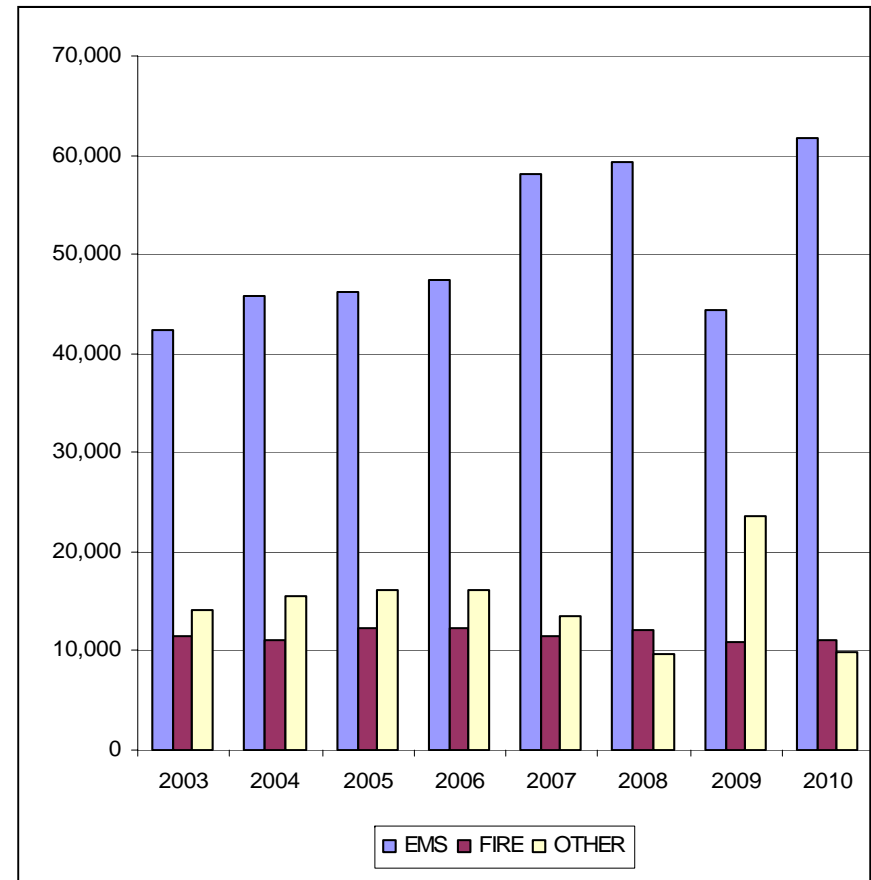
Executive Services:

- Provide professional, timely, and thorough inspections and plans review.
- Thoroughly investigate the cause of all fires of unknown origin and accurately identify incendiary fires and their perpetrators.
- Completely, accurately, and impartially investigate complaints involving Fort Worth Fire Department members.
- Prevent or mitigate the destructive effects of explosives and explosive devices.
- Effectively educate the public in fire and life safety strategy and skills.

FIRE SERVICES STRATEGIES

- Increase the number of minority and female applicants through an aggressive recruiting program.
- Increase public participation in education programs such as Learn Not to Burn, Youth Fire Academy, and Citizens Fire Academy.
- Educate the public on appropriate reactions to bombs and bomb threats through lectures and presentations.
- Apply for FEMA and other grants in order to expand and improve the department's Public Safety programs and supplement other department initiatives.
- Improve internal and external communication through focus groups, meetings, replacing paper-based processes with electronic ones, etc.

Fort Worth Fire Department Total Runs by Type, 2003-2010



In 2010, the Fire Department responded to 5,233 fires and 53,173 Emergency Medical Service (EMS) calls. The Fire Department also responded to 25,092 other emergencies. (Source: Fire Department, 2011.)

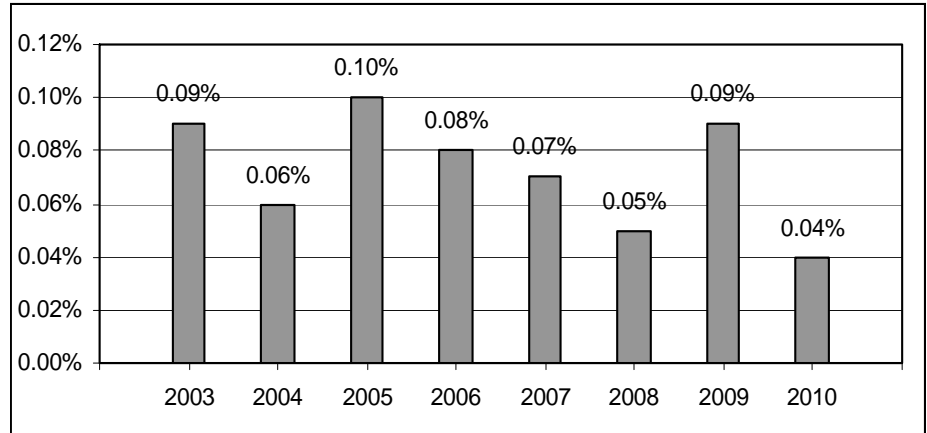
- Strengthen sprinkler and fire alarm requirements in the Fire Code for new and existing construction.
- Implement National Incident Management System (NIMS).
- Coordinate the expenditure of Homeland Security grant funds with the Emergency Management Office.

FIRE SERVICES PROGRAMS AND PROJECTS

Below are just a few examples of the many programs and projects the Fire Department administers:

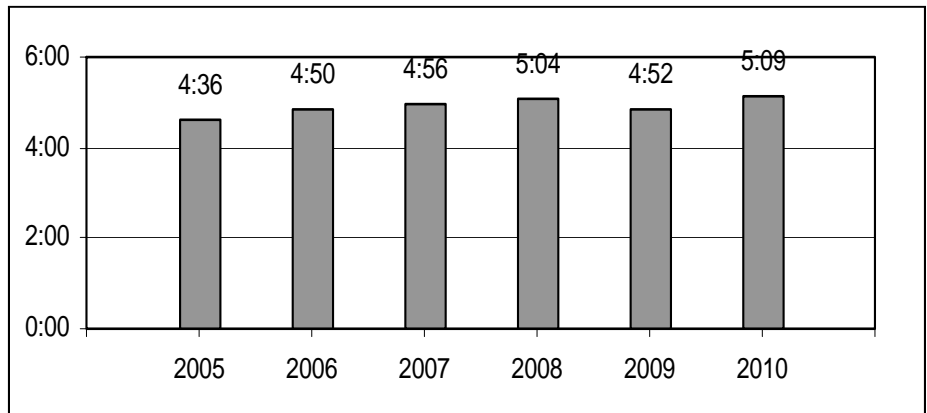
- **Learn Not to Burn®** is a program designed to provide instruction in fire safety behavior to elementary school students. This program has proven to be one of the most effective ever used by the community and Fort Worth schools. It is a structured curriculum taught by firefighters and reinforced by other resources, such as clowns, puppets, the Fire Safety House, and fire truck visits. This program is designed for children pre-kindergarten through the fifth grade.
- **Youth Fire Academy** is a new program used to engage students in grades 8-12 and to share information about the services offered by the Fire Department. This is a one-week version of the Citizen's Fire Academy designed to recruit new volunteers and expose youth to a possible career as a Fort Worth firefighter.
- **The Citizen's Fire Academy** program teaches up to 60 citizens annually about Department activities, fire safety, CPR, and first aid techniques. This education also enables graduates to assist the department with fire safety training and other special projects.
- **The Juvenile Fire Setter Intervention Program** is designed to help families with children who are involved in fire play or fire setting. Approximately 50-100 children are referred to the program each year. More than 90% of program graduates never relapse into fire setting behavior. The FWFD JFS program is part of the Tarrant County Juvenile Fire Setter Coalition, which is comprised of all the municipal and county entities that have JFS programs and all their referral sources. In addition, the department partners with several private charitable entities to ensure that juveniles in the program receive counseling and other services.
- **High School CPR Training** is provided by the Fort Worth Fire Department in partnership with the Area Metropolitan Ambulance Authority, the Fort Worth Independent School District (FWISD), and the American Heart Association. The objective is to provide CPR training to every high school sophomore in the FWISD. Five thousand high school students are trained every year by high school teachers, nurses, and Fort Worth firefighters through this collaboration.
- **Fire Safety Inspections** of the nearly 15,000 commercial businesses and approximately 900 target hazards are completed by fire company inspectors.
- **Underground Gasoline Storage Tank Inspections** ensure compliance with the Environmental Protection Agency (EPA) laws and regulations that provide for public safety and environmental protection.
- **Inspection and Review of Construction Plans and New Structures** involves several functions, including review for fire code compliance, inspection of fire

Fire Loss as Percentage of Total City Property Value, 2003-2010



Property losses due to fires decreased in 2010 to their lowest percentage in eight years. (Constant 2000 dollars). (Source: Fire Department, 2011.)

Fort Worth Fire Department Average Response Time, 2005-2010 (in minutes)



The department's total response time definition changed in 2007 to reflect a more accurate and true response time. Total response time is the total elapsed time between the Fire Dispatch office receiving the call and the first Fire apparatus arriving on-scene. (Source: Fire Department, 2011.)

protection systems such as sprinklers and alarms, and addressing. Ensuring compliance with all codes and regulations has a tremendous impact in reducing the number and severity of future fires.

- **Vial of L.I.F.E.** (Lifesaving Information for Emergencies). In conjunction with Texas Health Resources, the Vial of L.I.F.E. program is nationally recognized as saving countless lives each year by providing emergency personnel with pertinent medical information at critical times. The program was designed for seniors and individuals with serious medical conditions to assist personnel who respond and treat home emergencies.
- The Fort Worth Fire Department has embarked on a new reporting format for significant events that was originally developed by the U.S. Navy in conjunction with Tri-data. The key is estimating dollars saved or loss averted by answering how far would the fire have extended if the fire department had not taken protective measures. The likelihood is depicted in probability. This new reporting measure replaces the Fire Loss statistic in 2011.

Fire Services Capital Improvement Projects

The approval of the 2004 bond program has resulted in the Fire Department obtaining money to construct two new fire stations, buy land for one more, relocate or replace two others, and provide enhancements to existing stations. Placement of these stations is determined based on response time studies that tie into legal requirements for the provision of public safety services to newly annexed areas. Details of all currently funded and unfunded CIP projects can be found in Appendices D and E.

Emergency Management

Emergency Management focuses on increasing the capacity of organizations to plan for, respond to, and coordinate emergency activities. The Office of Emergency Management (OEM) is tasked with maintaining the community-wide emergency operations plan, monitoring of emergency conditions, establishing relations with partner agencies, fostering disaster preparedness efforts, and disseminating warning information. The warning system includes an aggressive public education campaign, testing of the outdoor siren system, and operation of the telephone ring-down system.

The OEM activates the Emergency Operations Center and/or the Emergency Management Plan as deemed necessary. Several other City departments take an active role in the Emergency Preparedness Program, offering expertise and facilities as needed. In early 2011 a new Joint Emergency Operations Center (JEOC) was opened. The JEOC combines City, County, and State emergency operations into one facility, thus improving communication and coordination.

EMERGENCY MANAGEMENT GOALS

- Reduce the adverse impacts of emergencies and disasters through all-hazard preparedness programs and initiatives.
- Facilitate educational activities that produce a greater understanding of emergency preparedness amongst governmental agencies and the public.
- Coordinate an integrated emergency management system with internal and

Fort Worth Fire Fighters in Action



Firefighters keep hand lines engaged during a commercial building fire. (Source: Fire Department, 2009.)



Warehouse fire seen from above at the Tarrant County College Fire Training Center. (Source: Fire Department, 2009.)

external agents in a timely manner.

- Strengthen our ability to plan for and provide assistance to special needs citizens.

EMERGENCY MANAGEMENT STRATEGIES

- Enhance the Office's relationship with the National Weather Service Office in Fort Worth to coordinate severe weather monitoring and response activities.
- Recertify the City and Tarrant County as a Storm Ready Community.
- Provide weapons of mass destruction (WMD) and chemical, biological, radiological, nuclear, and explosive (CBRNE) training and exercises to prepare local organizations for emergency and disaster situation response and recovery.
- Implement the National Incident Management System (NIMS).

EMERGENCY MANAGEMENT PROGRAMS

- **Early Warning Alert** for all types of disasters is provided through OEM, Weather Spotters Net, and the Medical Operation Center during mass-casualty incidents through outdoor warning sirens, email notifications, and telephone ring-down systems.
- **Association Networks** are continuously built by the Office of Emergency Management with groups, organizations, agencies, and individuals at the local, state, and federal levels. These associations help to establish the resources needed in times of disaster.
- **Homeland Security Grant Program (HSGP)** is a federal initiative to coordinate several different local grants aimed at improving our ability to prepare for and respond to a terrorist incident. The HSGP funds the Urban Area Security Initiative (UASI), Metropolitan Medical Response System (MMRS), and other local programs. This is a program directly supporting local capabilities to manage all-hazards, mass-casualty incidents and terrorist strikes until significant external resources arrive by systematically enhancing and integrating first-responders, medical providers, emergency management, business, and volunteers.
- **Local Emergency Planning Committee (LEPC)** is a federal requirement to prepare first responders, develop emergency plans, and educate the community on the threats of hazardous materials via transportation routes or fixed facilities. The LEPC is also required to maintain records of hazardous material accidents and storage of reportable quantities of hazardous chemicals.

Joint Emergency Operations Center



The Joint Emergency Operation Center (JEOC) renovations were completed in January 2011. (Source: Joint Emergency Operation Center, 2011.)